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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

RUDDOCK, ULA CORINNA

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**Application No.  
**09/241,127**Applicant(s)  
**Georg Schwinn**Examiner  
**Ula Corinna Ruddock**Art Unit  
**1771**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Jan 21, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-19 and 21-25 is/are pending in the application.
- 4a) Of the above, claim(s) 9-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 23 6) ☐ Other:

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### **DETAILED ACTION**

1. The Examiner has carefully considered Applicant's present response filed January 21, 2003. The claim objections have been overcome by the present amendment. Furthermore, the rejection in view of Strack et al. (US 5,681,645) has been overcome by the present amendment.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 112***

3. Claims 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 24, the phrase "waffle-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "waffle-like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim 25 is rejected as being dependent upon a rejected independent claim.

#### ***Claim Rejections - 35 USC § 103***

4. Claims 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin et al. (US 5,415,925), as shown in Paper #22. Rejection is maintained. Austin et al. disclose a nonwoven fabric comprising at least two nonwoven webs bonded by a lightweight adhesive web.

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The outer plies are nonwoven fibrous webs, i.e. fibrous battings (col 3, ln 40-66). With regard to claim 25, the webs can be composed of polyethylene filaments (col 3, ln 45-52). The plies are bonded using an adhesive layer (col 4, ln 49-50) and can be applied in a continuous or discontinuous pattern and in uniform or random point patterns (col 4, ln 61-64). The adhesive layer must be of a very low basis weight so that it does not significantly alter the flexibility and hand properties of the composite fabric. The adhesive layer forms a very light, wispy, gossamer web of adhesive which can be hardly be seen in the fabric, but which provides excellent inter-ply adhesion (col 5, ln 10-20). The adhesive is preferably a thermoplastic-based hot melt adhesive which is tacky at room temperature and can be styrene-butadiene copolymers and polyolefin-based polymers (col 4, ln 52-60). Therefore, because Austin's adhesives are the same as those disclosed on page 10 of the present specification, they would have elastic properties at room temperature such that the inner layer causes the article to recover after tensile loading, thereby to allow said article to be elastically stretched.

With regard to claims 21-24, while Austin et al. teach that the adhesive can be applied in a continuous or discontinuous pattern and in uniform or random point patterns, it fails to specifically disclose that the adhesive is applied in a latticework configuration, in parallel strips, parallel strips that are straight or meandering, and zig-zag or sinusoid curves wherein each adjacent pair of strands have vertices which touch or overlap in a mirror symmetric configuration, forming a waffle-

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like. It would have been obvious to one having ordinary skill in the art to have applied the adhesive of Austin et al. in the various patterns claimed by Applicant, motivated by the desire to obtain a laminate with breathability and flexibility in the desired portions of the laminated web.

With regard to the newly added limitation of the adhesive thickness, it should be noted that optimizing the thickness of the adhesive layer would be a result effective variable, e.g. the thicker the adhesive layer, the greater the bond. Therefore, it would have been obvious to one having ordinary skill in the art to have made Austin's adhesive strands have a thickness of from 0.1 to 1.5 mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the thickness of the adhesive strands, motivated by the desire to create a composite nonwoven fabric having increased bond strength and flexibility.

#### ***Response to Arguments***

5. Applicant's arguments filed January 21, 2003, have been fully considered but they are not persuasive for the reasons set forth. Applicant argues that the Strack et al. reference has an adhesive thickness of about 5  $\mu\text{m}$  which does not make any contribution to the elastic properties of the laminate. This argument is not persuasive because the Examiner has only used the Strack et al. reference for its teaching of screen printing and flexographic printing processes as required by the present invention. The Strack et al. reference was not used for its teaching of elastic

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properties. Furthermore, the rejection in view of Strack et al. has been overcome by the present amendment. Applicant also argues that the Austin et al. reference does not disclose a rubber-elastic intermediate layer that is dimensioned in such a way that the laminate can extend under tensile loading and then be restored again with the tension is released. This argument is not persuasive because Austin's adhesives at column 4, ln 55-60, are the same as those disclosed on page 10 of the present specification; therefore, they would have the same elastic properties as Applicant's adhesives and would be dimensioned in such a way that the laminate can extend under tensile loading and then be restored again when the tension is released. While it is unclear to the Examiner how Applicant is obtaining the thickness of Austin's adhesive layer (page 8, 1<sup>st</sup> paragraph), it should be noted that optimizing the thickness of the adhesive layer would be a result effective variable, e.g. the thicker the adhesive layer, the greater the bond. Therefore, as shown above, it would have been obvious to one having ordinary skill in the art to have made Austin's adhesive strands have a thickness of from 0.1 to 1.5 mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In the present invention, one would have optimized the thickness of the adhesive strands, motivated by the desire to create a composite nonwoven fabric having increased bond strength and flexibility. Applicant also argues that in the Austin et al. reference, the intermediate layer consists of an intermediate product which can be processed as a material strip from the roll, and with which the outer layers,

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consisting of fibrous material, can be adhesively bonded, which differs from the present invention wherein the adhesive strands themselves from a rubber elastic insert, the additional material strip is done away with. This argument is not persuasive because Applicant's arguments are not commensurate in scope with the claims. Applicant's claims do not disclose the intermediate product; they claim only the final product. Furthermore, Austin's final product has two outer layers and an adhesive layer.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is (703) 305-0066. The Examiner can normally be reached Monday through Thursday from 6:30 AM to 5 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor Terrel Morris can be reached at (703) 308-2414.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-2351.

Ula C. Ruddock *UCR*  
Patent Examiner  
Art Unit 1771  
April 7, 2003

*Ula Ruddock*